

[CLAIMS]

[Claim 1]

A contact spring, comprising:
a support portion connected to electrical equipment;
a contact portion electrically connected to an external power supply terminal;
at least two bent portions connected between the support portion and the contact portion and having a bent shape.

[Claim 2]

The contact spring of claim 1, wherein the bent portions are constructed in a semispherical shape or 'C'-shape.

[Claim-3]

The contact spring of claim 1, wherein the width of the bent portions is different from each other according to their location,

[Claim 4]

The contact spring of claim 1, wherein the bent portions have the same width.

[Claim 5]

The contact spring of claim 1, wherein the width of the end of the contact portion is smaller than the width of the part connecting to the bent portions.

[Claim 6]

The contact spring of claim 1, wherein the contact portion is bent with a given curvature

[Claim 7]

The contact spring of claim 1, wherein the surface connecting the contact portion may be sloped so as to prevent the bent portion at the topmost side from contacting the PCB surface.

[Claim 8]

The contact spring of claim 1, wherein the strain energy generated in the entire bent portions is stored dispersed in the respective two or more bent portions.

[Claim 9]

The contact spring of claim 1, wherein the width of at least one of the connecting surfaces connecting the bent portions is at least partially smaller width than the width of the bent portions.

[Claim 10]

The contact spring of claim 1, wherein the electrical equipment is a vibration motor.

[Claim 11]

A vibration motor, comprising:

a contact spring including I

a support portion,

a contact portion electrically connected to an external power supply terminal,

at least two bent portions connected between the support portion and the contact portion and having a bent shape,

a vibrating portion eccentrically rotating by power supplied from outside through the support portion.

[Claim 12]

The vibration motor of claim 11, wherein the bent portions are constructed in a semispherical shape or ¹C -shape.

[Claim 13]

The vibration motor of claim 11, wherein the width of the bent portions is different from each other according to their location.

[Claim 14]

The vibration motor of claim 11, wherein the bent portions have the same width.

[Claim 15]

The vibration motor of claim 11, wherein the width of the end of the contact portion is smaller than the width of the part connecting to the bent portions.

[Claim 16]

The vibration motor of claim 11, wherein the contact portion is bent with a given

curvature

[Claim 17]

The vibration motor of claim 11, wherein the surface connecting the contact portion may be sloped so as to prevent the bent portion at the topmost side from contacting the PCB surface.

[Claim 18]

The vibration motor of claim 11, wherein the strain energy generated in the entire bent portions is stored dispersed in the respective two or more bent portions.

[Claim 19]

The vibration motor of claim 11, wherein the width of at least one of the connecting surfaces connecting the bent portions is at least partially smaller width than the width of the bent portions.